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ABSTRACT

The structural elements of the spontaneous symbolic play of 2- and 3-year-olds were compared with those of 4- and 5-year-olds. All 32 children studied were enrolled in a private day care center. Each child was observed during free play in the center for 15 minutes. Three categories of signifiers (animate, inanimate and imaginary) and five modes of representation (enactment, object substitution, symbolic construction, preparatory behavior and comments) were identified. The data were coded in four phases. In the first phase of coding, incidents of symbolic play were identified. During the other three phases of coding, the structural elements, i.e. the signifieds, signifiers, and modes of representation, were identified, coded and counted. Seven transcripts were selected at random to be coded by two independent coders to yield reliability data. Percentage of agreement among coders ranged from 80 to 84 percent. Results suggest that younger children used more symbolic construction, preparation and comments as modes of representation and more animate and imaginary signifiers. Implications of results for Piaget's and Vygotsky's theories of symbolic play are discussed. (Author/RH)

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Structural Elements of Symbolic Play
of Preschool Children

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Structural Elements of Symbolic Play
of Preschool Children

The importance which Piaget (1962) assigns symbolic play in his theory of the development of certain cognitive functions, especially the symbolic function, is receiving an increasing amount of empirical support (Freyberg, 1973; Golomb and Cornelius, 1977; Johnson, 1976; Saltz and Johnson, 1974; Smilensky, 1968). In these studies, however, symbolic play has generally been treated as a global ability. Very little is known about the structure of this activity and the ways in which this structure differs across age. The essence of any symbolic activity is that one thing, the signifier, stands for something else, the signified. Therefore, the basic elements from which a symbolic activity is structured are the signifier, that which is signified, and the manner in which the relationship between the signifier and signified is manifest, that is, the mode of representation. When a child pretends to be a cat by crawling on the floor and saying "meow", a cat is being signified, the child is the signifier, and the mode of representation is the child's enactment of a cat.

In this study, 32 children between the ages of 2 and 6 years were observed during free play time at a day care center. The purpose of this study was to identify and describe the structural elements (i.e., the signified items, the signifiers and the modes of representation) and then compare this aspect of the symbolic play of the younger group (2- and 3-year-olds) with that of the older group (4- and 5-year-olds).

Method

Subjects

The subjects were 32 children enrolled in a private day care center. There were eight 2-year-olds, eleven 3-year-olds, nine 4-year-olds, and four 5-year-olds.

Procedure

Each child was observed for 15 minutes by the experimenter during free play time in the day care center. In this particular day care center, the children were free to choose their own activities during most of the day. The order in which the subjects were observed was determined by random selection. A narrative account of the child's behavior and of behavior of other people with whom the child interacted was dictated into a tape recorder during the observations. These accounts were later transcribed.

Instrumentation

A set of categories for classifying characteristics of each of the three structural elements of symbolic play was developed. These categories are briefly described on page 1 of your handout.

There were three major categories--signifieds, signifiers and modes of representation. Included in the signifieds category were the objects and beings which the child represented in his or her symbolic play. For example, if the child pretended to be a cat, cat was counted as a signified item. The signifiers were the objects and beings--either real or imaginary--which the child used to represent pretend items. Signifiers were classified as real inanimate objects, real animate beings or imaginary objects and beings.

There were four subcategories of real inanimate signifiers: actual objects (e.g., a real skillet used for cooking pretend eggs), toy objects (e.g., a toy truck representing a real truck), nonsimilar objects (e.g., a toy spoon being used as a thermometer), and constructed objects, that is, things the child just constructed and then used in a pretend activity. Animate signifiers included the child him or herself, other children, adults and animals. Something was classified as an imaginary signifier when the child included in his or her symbolic play objects or beings which were not really present.

The third major category was modes of representation which included the behaviors with which the child indicated involvement in or preparation for symbolic play. There were five categories of modes of representation: (1) enactment (i.e., the child enacted pretend behaviors), (2) object substitution (i.e., the child behaved towards an object or another being in a way that indicated its inclusion in a pretend activity), (3) symbolic construction (e.g., art work, costuming), (4) preparation or planning for symbolic play, and (5) verbal comments.

Analysis

The data were coded in four phases. In the first phase of coding, incidents of symbolic play were identified. During the other three phases of coding, the structural elements, i.e. the signifieds, signifiers, and modes of representation, were identified, coded, and counted. Seven transcripts were selected at random to be coded by two independent coders to yield reliability data. Percentage of agreement among coders ranged from 80 to 84 percent.

Results

The results are presented in the tables in your handout. Table 1 on page 4 of the handout shows that most of the children--78%--engaged in some symbolic play during the observation period.

Table 2 presents the results regarding the use of various types of signifiers. Looking at the total sample, more items were signified by the child him or herself and by nonsimilar objects than by the other types of signifiers. The results by age group are similar except that the younger children also used toy signifiers to represent many of their pretend items. The major age differences appeared to be this greater use of toys by the younger children and the more frequent use of imaginary signifiers and of peers as signifiers by the 4- and 5-year-olds.

In Table 3 are presented the results regarding the modes of representation. For the total sample, object substitution, comments and enactment were the ways in which the children represented most of their pretend items. There appeared to be rather marked age differences. The younger children seemed to make much greater use of object substitution than did the older children. The older children, on the other hand, made more use of comments, preparation and symbolic construction than did the younger children. Some pretend identities and activities were manifest using combinations of modes of representations. For example, a child might represent a truck by pushing a block along the floor going brmm, that is, by object substitution and also by saying "Here comes my truck." that is, with a verbal comment. When the use of comments was examined further to see to what extent they were used alone or in combination with other modes, it was

found that when the younger children represented pretend items with comments it was most often done in conjunction with object substitution or enactment. When the older children used comments, they more frequently verbally expressed their pretend items without supporting actions or objects.

Discussion

The symbolic play of the younger children seemed to be more dependent upon the environment and more embedded within the child's sensory-motor activities than that of the older children. It was as though the younger children simply took whatever objects were readily available in their environment and used them in a pretend manner. The pretend identities expressed by this play seemed to reside in the nature of the object rather than the child's having a preconceived notion for which appropriate representation was sought. The 2- and 3-year-olds more often used concrete objects and enacted bits of behavior as vehicles for their pretend rather than letting them be carried solely by verbalization and imaginary signifiers. Vygotsky (1976) maintained that very young children can't sever thought from object and action and need substitute, that is, pretend, objects and actions as pivots to support their ideas.

Much of the symbolic play of the older children appeared to be less controlled by the environment and more directed by the child's own ideas than that of the younger children. Preparatory behavior and symbolic construction were more prevalent in the play of the older children. Both of these activities generally involve having an idea of what's to be represented prior to the actual representation. Another way in which the older children

demonstrated a developing ability to think about objects and events without the necessity of acting upon real objects or engaging in actual imitation was in their use of imaginary signifiers and comments. The older children were just as apt to express pretend items verbally without supporting objects or actions as they were to use enactment or object substitution. These findings are consistent with Piaget's theory of cognitive development in which the child is seen as moving from knowing the world through sensori-motor interaction to knowing it through representations closely bound to actual entities and events to knowing it through concept formation, reflective thought and concrete operations.

The results of this study, however, must be viewed as merely suggestive. First of all, since it was a cross-sectional rather than a longitudinal study, conclusions about developmental trends must be quite tentative. Secondly, there were definite individual differences in the play of the children in this study. There is no way to determine if these were more a function of the varying contexts in which the play occurred or of actual differences in symbolic play abilities since what was examined was simply the spontaneous performance of the children with no attempt to measure their competence. And finally, the lack of independence of the categories of symbolic play ruled out the possibility of using inferential statistics.

It is hoped, however, that the results of this study will suggest hypotheses about the development of symbolic play and about the relationships of various characteristics of symbolic play with different aspects of cognitive development which can be examined in subsequent studies.

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Structural Elements of Symbolic Play

(For a more complete description and coding instructions see Gowen, J. W., A Category System for Identifying and Coding the Structural Elements of Symbolic Play, unpublished paper, University of North Carolina at Chapel Hill, 1977.)

I. Signifieds: The object or being or activity of a being which is represented in the child's symbolic play.

Examples: The child points at sand in a bowl and calls it a cake. The child points a stick and says "Pow". The child draws a picture of a tree. In these examples, cake, bowl, weapon, the act of shooting and tree are the signified items.

A. Animate: Animate beings and acts of animate beings which are represented.

B. Inanimate: Inanimate objects which are represented.

II. Signifiers: The real or imaginary object or being which is used to represent a pretend object or being.

A. Inanimate

1. actual: An object is used in a pretend way but its identity remains unchanged.

Example: A real skillet is used as the child pretends to cook eggs.

2. toy: A toy or some other replica is used to stand for what it was designed to represent.

Examples: Child pushes a toy truck across the floor making brmm sounds.

3. nonsimilar: An object is used to represent another object or being which it does not directly resemble.

Example: Child hops a toy spoon or a stick along table and says in a high voice: "Hi! I'm coming to see you."

4. constructed: An object that the child has constructed and is now using in a pretend activity.

Example: Child holds "camera" which she has made from kleenex box and says: "Smile."

B. Animate

1. self: The child assumes a pretend identity or acts out pretend behavior.

Example: Child says: "I'll be Kung Fu."

2. peer: When the child indicates that another child has a pretend identity or when the child is involved with a peer's pretend activity.

Example: Child says to peer: "I'll be the mommy and you be the baby."

3. adult: When the child indicates that an adult has a pretend identity or when the child is involved with the adult's pretend activity.

Example: Child offers a pretend cup of coffee to an adult.

4. animal: When the child indicates that an animal has a pretend identity or is involved in a pretend activity with an animal.

C. Imaginary: Imaginary objects and beings which the child includes in his/her symbolic play.

Example: Child extends empty hand and says: "Here's five dollars."

III. Modes of Representation: The behaviors with which the child indicates involvement in or preparation for a pretend activity.

A. Enactment: When the child demonstrates that he/she represents someone or something by behaving as that being or thing might behave.

Example: Child crawls along floor saying "meow."

B. Object substitution: When the child indicates that a being or object other than himself is the signifier by either his/her use of or behavior toward the being or object or by supplying sound and/or movement for an object so that it represents something or someone.

Example: Child pushes truck across floor and says brmm.

C. Symbolic construction: When the child constructs or modifies an object or set of materials so that it represents something.

Examples: Child draws a picture of a house. Child makes a mound of sand and calls it a castle.

D. Preparation: Child either verbally or motorically plans or prepares for a pretend activity.

Examples: Child asks: "Can I be Kung Fu?" Child gathers materials to make a pretend camera.

E. Comments: Child verbally indicates the pretend identity of an object or being.

Example: Child puts sand in a bowl and says: "This is a cake."

Table 1
Number and Percentage of Children Who
Manifest Symbolic Play by Age

<u>Age in Years</u>		<u>Symbolic Play</u>	<u>No Sym- bolic Play</u>	<u>Total</u>
2	N	4	4	8
	%	50	50	100
3	N	10	1	11
	%	91	9	100
2 & 3	N	14	5	19
	%	74	26	100
4	N	8	1	9
	%	89	11	100
5	N	3	1	4
	%	75	25	100
4 & 5	N	11	2	13
	%	85	15	100
Total	N	25	7	32
	%	78	22	100

Table 2

Signifiers by Type and by Age Group: The Number¹, the Mean², and the Percentage³ of Total Signifieds for That Age Group

The Percentage of Total Signified for Each Age Group																	
Real												Imaginary			Total -ed/-er pairs	Total signi- fieds	
<u>Animate</u>								<u>Inanimate</u>									
<u>Self</u>		<u>Others</u>			<u>Total</u>												
		peer	animal	adult	total			actual	toy	non- similar	con- structed	total	animate	inani- mate			total
2 & 3 Yr.-old N = 19	N	47	9	4	7	20	67	4	44	41	4	93	2	8	10	170	157
	$\bar{x}$	2.47	.47	.21	.31	1.05	3.53	.21	2.32	2.16	.21	4.89	.11	.42	.53	9.05	8.26
	%	30	6	3	4	13	43	3	28	26	3	59	1	5	6	110	100
4 & 5 Yr.-old N = 13	N	35	15	2	2	19	54	9	6	30	3	48	7	11	18	120	105
	$\bar{x}$	2.69	1.15	.15	.15	1.46	4.15	.69	.46	2.31	.23	3.70	.54	.85	1.38	9.23	8.08
	%	33	14	2	2	18	51	9	6	29	3	46	7	10	17	114	100
Total N = 32	N	82	24	6	9	39	121	13	50	71	7	141	9	19	28	290	262
	$\bar{x}$	2.56	.75	.19	.28	1.22	3.78	.41	1.56	2.22	.22	4.41	.28	.59	.88	9.06	8.19
	%	31	9	2	3	15	46	5	19	27	3	54	3	7	10	111	100

1. N = The number of different signified-signifiers.

2. $\bar{x}$ = The number of different signified-signifiers divided by the number of subjects.

3. % = The number of different signified-signifiers divided by the number of signifieds.

Table 3

Modes of Representation by Age Group: The Number¹, the Mean² and the Percentage³ of Total Signifieds for That Age Group

		<u>Enact-</u> <u>ment</u>	<u>Object</u> <u>Sub.</u>	<u>Symbolic</u> <u>Constrc.</u>	<u>Preparation</u>	<u>Comment</u>
2 _s & 3 _s N = 19	N	43	94	13	14	41
	$\bar{X}$	2.26	4.95	.68	.74	2.16
	%	27	60	8	9	26
4 _s & 5 _s N = 13 _s	N	27	28	22	18	54
	$\bar{X}$	2.08	2.15	1.69	1.38	4.15
	%	26	27	21	17	51
Total N = 32	N	70	122	35	32	95
	$\bar{X}$	2.19	3.81	1.09	1.00	2.97
	%	27	47	13	12	36

1. $\bar{N}$ = The number of different signified-mode combinations.
2. $\bar{X}$ = The number of different signified-mode combinations divided by the number of subjects.
3. % = The number of different signified-mode combinations divided by the number of signifieds.